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What is claimed is:

1. A system for the production of recombinant *N*-glycosylated target proteins, the system comprising a prokaryotic organism into which is introduced a genetic information encoding for a metabolic apparatus capable of carrying out the requested *N*-glycosylation of the target protein, wherein said prokaryotic organism also contains the genetic information required for the expression of one or more recombinant target proteins.
- 10 2. The system of claim 1, wherein the metabolic apparatus comprises specific glycosyltransferases for the assembly of the oligosaccharide on a lipid carrier and an OTase that covalently links this oligosaccharide to specific residues of the desired target protein.
- 15 3. The system of one of claims 1 or 2, wherein the prokaryotic organism is *Escherichia coli*.
- 20 4. The system of one of claims 2 or 3, wherein the prokaryotic organism is producing *N*-glycans with a specific structure which is defined by the type of the specific glycosyltransferases.
- 25 5. A method of producing recombinant *N*-glycosylated target proteins, the method comprising the introduction of a genetic information encoding for a metabolic apparatus capable of carrying out the requested *N*-glycosylation of the target protein into a prokaryotic organism, wherein also the genetic information required for the expression of one or more recombinant target proteins is introduced into said prokaryotic organism.
- 30 6. The method of claim 5, wherein the metabolic apparatus comprises specific glycosyltransferases for the assembly of the oligosaccharide on a lipid carrier and an OTase, the OTase covalently linking this oligosaccharide to specific residues of the desired target protein.

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7. The method of one of claims 5 or 6, wherein the prokaryotic organism is *Escherichia coli*.

5 8. The method of one of claims 6 or 7, wherein - by selection of specific glyco-syltranferases - the prokaryotic organism is producing *N*-glycans with a specific structure which is defined by the type of the specific glycosyltrans-ferases.

10 9. Utilization of the system of one of claims 1-4 or the method of one of claims 5-8 for the production of target proteins for the development of medica-ments or for the production of medicaments for the treatment of humans or animals or plant.

15 10. Proteins for nutrition and/or pharmaceutical purposes, produced with the system of one of claims 1-4 or according to the method of one of claims 5 to 8.

20 11. Vaccines, Cytokines and the like medicaments for human or animals or plant, produced with the system of one of claims 1-4 or according to the method of one of claims 5 to 8.

12. Industrial enzymes, functional food, cosmetics, packaging materials or tex-tiles comprising proteins produced with the system of one of claims 1-4 or according to the method of one of claims 5-8.

25 13. Utilization of a medicament produced with the system of one of claims 1-4 or according to the method of one of claims 5-8 for the therapy of human or animal or plant diseases.

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